

AMENDMENTS

In the Claims:

Please cancel claims 1 and 24 without prejudice or disclaimer.

Please amend claims 3, 7, and 21-23.

B¹ 3. (Amended) The method of claim 2, wherein the alterations in gene expression or protein expression are detected by a label.

B² 7. (Amended) The method of claim 2, wherein the molecular profile comprises alterations in protein expression.

21. (Amended) A method of typing toxicity of a test chemical composition suspected of toxicity, comprising the steps of:

a) creating a molecular profile of the test chemical composition suspected of toxicity, comprising the steps of:

B³ i) contacting an isolated mammalian embryoid body with the chemical composition; and
ii) detecting and recording alterations in expression of sets of genes or proteins in the mammalian embryoid body in response to the chemical composition compared to expression of sets of genes or proteins in an embryoid body not contacted with the chemical composition, to create a pattern of alterations in gene expression or protein expression; and

b) comparing the molecular profile in step a) with the molecular profile of a chemical composition having predetermined toxicities;

wherein the type of toxicity of the test chemical composition, if any, is determined by the comparison in step b).

22. (Amended) A systematic method of typing toxicity of a test chemical composition suspected of toxicity, comprising the steps of:

a) creating a molecular profile of the test chemical composition suspected of toxicity, comprising the steps of:

i) contacting an isolated mammalian embryoid body with the chemical composition; and
ii) detecting and recording alterations in expression of sets of genes or proteins in the mammalian embryoid body in response to the chemical composition compared to expression of sets of genes or proteins in an embryoid body not contacted with the chemical composition, to create a pattern of alterations in gene expression or protein expression; and

b) comparing the molecular profile in step a) with a composite library of molecular profiles of chemical compositions having predetermined toxicities, wherein the composite library comprises the molecular profiles of at least two chemical compositions, wherein said molecular profiles are created according to claim 2;

wherein the type of toxicity of the test chemical composition, if any, is determined by the comparison in step b).

23. (Amended) A method of ranking toxicity of a test chemical composition suspected of toxicity, the method comprising:

a) creating a molecular profile of the test chemical composition suspected of toxicity, comprising the steps of:

i) contacting an isolated mammalian embryoid body with the chemical composition; and
ii) detecting and recording alterations in expression of sets of genes or proteins in the mammalian embryoid body in response to the chemical composition compared to expression of sets of genes or proteins in an embryoid body not contacted with the chemical composition, to create a pattern of alterations in gene expression or protein expression; and

b) comparing the molecular profile in step a) with a composite library of molecular profiles of chemical compositions having predetermined toxicities, wherein the composite library comprises the molecular profiles of at least two chemical compositions, wherein said molecular profiles are created according to claim 2;

B³ wherein the toxicity of the test chemical composition, if any, is ranked by the comparison in step b).
